

Overview of NYS Weatherization Health & Safety

Background

- Health and Safety was not specifically recognized as a WAP component in the early years of the Program
- Awareness grew when more advanced diagnostics equipment and installations were integrated into WAP, particularly blower door technology.
- *WAP got really good at air sealing*



Technical Basics

- As houses become more airtight, the potential for IAQ problems grew
- The tighter we make the house, the more influence individual components have on the others
- All pollutants inside the pressure boundary will eventually be dispersed over the entire area
- Altering a building or its mechanicals can have unexpected consequences

Health & Safety in WAP

WAP is primarily an energy efficiency program.

Health & Safety measures must meet criteria:

- (1) In some cases the elimination of hazards is necessary before Weatherization work can begin.
- (2) In other cases, it may be necessary to defer an energy reduction measures.
- (3) Some hazards can be eliminated as a result of the weatherization measure. (Energy related H&S repair)
- (4) H&S spending is limited (expressed as a percent of average dwelling unit costs), H&S cost must be reasonable and be related to the primary energy conservation purpose of the Weatherization Assistance Program.

Health & Safety Background

- DOE allowed specific health and safety measures in early 1990's
- In 2001, DOE allowed a separate cost category for H&S, and allowed those costs to be removed in the cost per unit calculations
- H&S evolved so that EE measures would “do no harm”

Health & Safety Background

Awareness of the Issues

- Significant air sealing can affect indoor air quality
 - Air pressures in a building may change
 - Moisture
 - Combustion by-products
 - Back drafting
 - Chemicals and pollutants
- Poorly performed weatherization can exacerbate existing problems or even create new ones
- Properly performed weatherization can solve some of the problems and create a healthier indoor environment

Health & Safety Evolution

- H & S increased costs and the focus related to Health & Safety
- Lead Safe Weatherization (LSW)
 1. All workers take LSW course
 2. WAP adheres to EPA Renovation, Repair and Painting (RRP) rule
- New WAP Guidance WPN 11-6
 - Further clarification of allowable measures
 - Some added flexibility (TESTING)
 - Focus is still on energy efficiency measures and insuring no detrimental effects

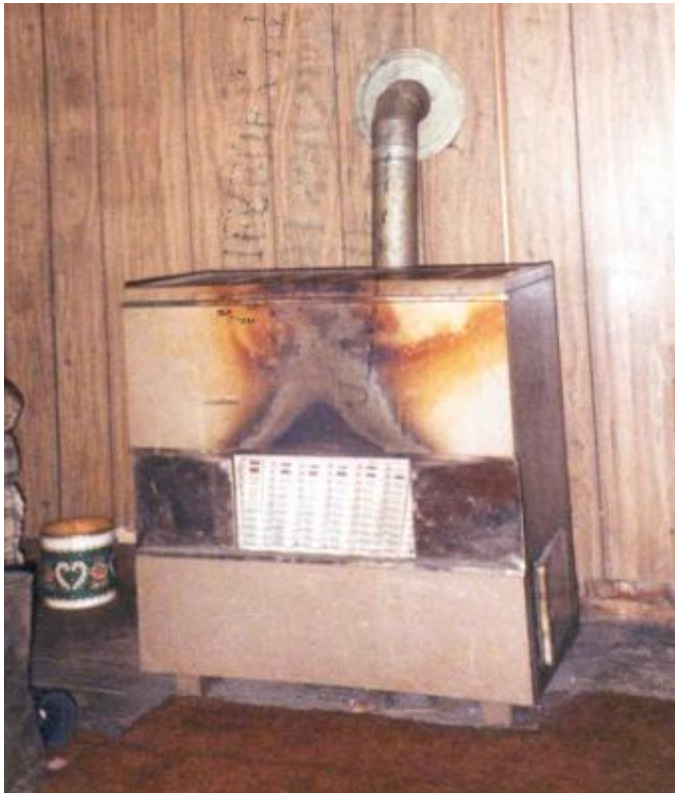
Atmospheric appliances

- Get combustion air from the inside air
 - Can create several issues



Common Problems

Combustion spillage



Atmospheric appliances

Where will the
combustion come
from when the doors
are closed?



Space Heaters

Multiple space heaters often compete for combustion air



Unvented Space Heaters

WAP Public Enemy # 1

- Much greater risk since combustion byproducts are not vented outside
- Also produce excessive moisture

Unvented space heaters must be removed before weatherization measures can be installed, except those used as secondary heat sources, No Weatherization funds can be used for unvented heaters



All Too Common Venting Problems



More Venting Problems

*Big potential for drafting problems
under statement*



Venting Problems

drafting problems ?



Electrical problems

Good example of a possible energy related H&S repair



Electrical problems

May be beyond the scope of WAP



Who's the Electrician?

Because of cost, will we defer this project ?



Lead Paint Awareness



Lead Safe Weatherization

Working Lead safe can get
expensive





Lead-Safe Work Practices Exposure Assessment

Prepared by
New York State Weatherization Directors' Association
Through a grant from the NYS Division of Housing and Community Renewal

A Partner with the New York State Community Action Association,
& the Association for Energy Affordability

**5869 Fisher Road
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What can Weatherization do if all areas of the home have chipping paint?



How much insulation can Weatherization add?



Possible Asbestos

Vermiculite

No insulation can be installed and no
air sealing will be done



Possible Asbestos



Possible Asbestos



Possible Asbestos

What do we do?



Mold & Moisture

Extreme case of mold



Mold & Moisture



Mold & Moisture



Leaking Sewer Pipes in Crawl Space



Vents



Weatherization will make sure all venting systems are clear and venting to the outside

Vents



Oven testing



Roofing

Roof replacements and repairs are not viewed as a health & safety repair



WAP can do incidental repairs to preserve weatherization material.

Total replacements are beyond the scope of Weatherization

DOE/WAP and Healthy Homes

As you can see several instances are beyond the scope of WAP

- Remediation of lead and mold
- Other IAQ problems
- Major electrical and plumbing issues
- Most structural and non-energy related H&S issues



When there are unresolved H&S issues

- The agency will have to defer a measure or the job until problems are resolved.
- In these cases households do not get the full energy saving benefits of WAP.
- Job deferral's may never get WAP services or its H&S problems resolved

No WAP provider wants to leave conditions like these!



WAP H&S Measures are Often Effective

- With DOE and other WAP funds, WAP providers –
 - Usually can address health and safety issues related to heating systems
 - Work lead safe
 - Can address some moisture problems
 - Can address some electrical and plumbing issues
 - Can add/repair ventilation
 - Provide some educational materials

Why Doesn't WAP Repair All H&S Problems?

- Primary focus of DOE WAP is energy efficiency
 - H&S measures should either enable an EE measure to be performed or insure that an EE measure does not create a new or compound an existing H&S issue
- H&S measures cost money but provide no energy savings
- Current national evaluation are energy savings and energy savings per dollar invested
- Hard to justify limited funds being diverted away from WAP energy focus

WAP Health & Safety Guidance – WPN 11-6

- Response to concerns with clarity and consistency in how health and safety issues are approached by grantees
- Describes most common issues encountered during weatherization, what is allowed, what is required, and what is prohibited in terms of dealing with these issues
- It addresses Testing, Client Education, and Training for twenty-five Health and Safety Categories
- Guides the grantee in creating their H&S Plan, the guiding document for subgrantees.

DOE/WAP and Healthy Homes



- *Isn't the connection obvious?*
- WAP goes into hundreds of low-income houses each year
- WAP already understands the need and has a component for assessing health and safety problems, with a willingness and desire to increase the H&S focus
- How can we partner and mobilizing additional resources?



Thank You !